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**Special points of interest:**

- Lucas County has joined with the City of Toledo in taking bids for salt to be used during the 2003-2004 winter season. The order of 15,000 tons will be delivered by ship this fall to the Kuhlman docks.
- Gain access to the GPS points, benchmarks and reference points of the Lucas County Engineer's Office on the Control Point GIS Web Application, now available on the web at: <http://co.lucas.oh.us/Engineer/>  
  
Click on "Control Point Web Application" under the "Engineer's Links"
- Please submit your pictures, ideas and articles for the next issue to Scott Bernhard by Dec. 1, 2003

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## The Earley Edition

*Keith G. Earley, P.E., P.S.  
Lucas County Engineer*

### ENGINEER'S MESSAGE MEANINGFUL JOBS

The accomplishments of our department have an impact on public health, safety, mobility, and the economic vitality of the county. We don't always recognize all of the individual contributions, but each employee contributes to the overall effort. A snow-plow operator can probably recognize that his efforts could prevent deaths or injuries. The flagger at a job site should be able to recognize his or her importance. The worker striping the roads, placing or repairing signs or traffic signals, or repairing guardrail also should be able to see the benefit.

Congestion is increasing in urban areas of all sizes. Unpredictable delays can be especially troublesome to businesses and the general public. Urban areas that provide attractions and conveniences without congestion are the most desirable. Removing obstructions from the roadsides, making our pavements and shoulders wider, and making side slopes flatter provides errant motorists more room for a safe recovery. Improving intersections allows for safer turning movements, helps alleviate congestion, and reduces unnecessary delay.

Maintaining our existing highway system, along with designing, constructing, and inspecting new improvements that will function adequately for many years, is important to our quality of life. Mechanics, secretaries, engineers, surveyors, technicians, laborers, equipment operators, inspectors, all play an important role in our operation. Performing all of our duties effectively and in a cost efficient manner allows us to construct more needed improvements. Employees should derive satisfaction from a job well done because they are **truly meaningful jobs**.

### WHERE WERE YOU WHEN THE LIGHTS WENT OUT?

Dave Bettinger, an engineering technician for the Lucas County Engineer since 1974, helped a fellow County Employee who was trapped in the elevator during the now infamous blackout of 2003. Mary Vislay, a Lucas County Auditor clerk, was stranded when the power ceased at 4:15 pm on August 14, 2003. Dave, who was heading home, heard her pleas for help and stayed with her during the 2.5 hour ordeal. He spent the time encouraging her to "hang in there" and even slipped her a copy of the EARLEY EDITION through the gap in the elevator door.

Dave was interviewed by the local CBS affiliate, and the segment aired the following night. Mary, who was trapped between the 7<sup>th</sup> and 8<sup>th</sup> floors, stated that Dave promised "I won't leave you, I'll stay with you", and also said he was "so kind, so kind!" Dave said "somebody needed to be here to keep her company" and "I didn't want her to spend a whole night here by herself". Mary thanked him by taking him out to lunch and Commissioner Tina Skeldon Wozniak also thanked him for being a "life saver".



Mary Vislay and Dave Bettinger

JIM O'HEARN

## SUMMIT STREET BRIDGE REHABILITATION



The Lucas County Engineer's Office and the City of Toledo are currently working on the rehabilitation of Summit Street Bridge #352. The bridge was built in 1940 and carries four lanes of traffic and two raised sidewalks over the Ottawa River. The most recent work done to the bridge was the repair of the concrete deck by the City of Toledo in August 1999. Additional work is required due to a hole that developed in the deck during August of this year. A study completed in December 1999 recommended rehabilitation of the bridge at a cost of \$4,100,000.

The proposed rehabilitation project involves repairing the five (5) existing concrete piers (intermediate supports) and extending each vertically with concrete to provide additional clearance for boats. The existing concrete wall abutments (end supports) will be replaced with a combination earth fill protected with rock and concrete abutments. The existing deck, steel support beams, concrete slab, sidewalks, and steel pedestrian railing will be replaced.

The main supporting beams will be made of high strength, low maintenance steel and the deck slab and sidewalks

will be made with a special concrete, which is highly resistant to de-icing salts. The pedestrian railing design has been crash tested and will be made of galvanized posts and rails. Some of the approach roadway at the ends of the bridge will also be improved. The exposed surfaces of the existing and new concrete will be treated with a color pigment sealer to enhance durability of the concrete as well as provide a pleasing appearance. Illumination of the top of the deck with decorative lighting fixtures is being considered.

Two-way traffic will be maintained throughout construction, which is scheduled for 2004 and 2005. Additional information can be obtained on the web at [www.ci.toledo.oh.us](http://www.ci.toledo.oh.us) or [www.maumeerap.org](http://www.maumeerap.org) (select profiling the Ottawa River V).



## 2003 GUARDRAIL PROGRAM

JOHN CRANDALL

Guardrail inspection is an important element of highway safety. Tina Richey from the Traffic and Planning Section performs a bi-annual inspection of all County guardrails. Based on this inspection, maintenance and contract work is scheduled.

This year, bids were taken for the replacement of 7000 feet of guardrail along with 80 anchor assemblies at 14 locations. This program is 100% federally funded, and the successful bidder was Lake Erie Construction with a low bid of \$202,600.00. An additional 1300 feet of guardrail along with 9 anchor assemblies will be installed by contract along Ludwig Road between U.S. 24 and Jeffers Road. This project will address the dangerous excavation by the property owner along the right-of-way line near U.S. 24.

The bi-annual inspection

report indicated over 3 miles of existing guardrail was misaligned in Jerusalem Township due to slope failure. The report also indicated that another 4 miles of guardrail should have the top of bank wood supports replaced to support the stone berm. The long-term solution to slope failure problems is to purchase right-of-way in agriculture areas, so that ditches can be moved back. In residential areas, the ditches should be enclosed. Both solutions are expensive and funding is not available at this time.

In order to address some of the alignment problems, a crew from the Road Maintenance Department pulled and reset the existing guardrail in a 1000 foot trial section of Cousino Road, between Arquette Road and Cedar Point Road. The crew

averaged 170 feet per day, at reasonable cost, and therefore, the project will continue this fall. Last week, the crew hit a high of 300 feet in one day. The success of this project will be evaluated this winter, and if the need to enclose or move back ditches can be delayed or eliminated, it will be well worth the effort.

The next operation for the Guardrail Crew will be the installation of used guardrail to support the stone berm on a section of North Curtice Road.

Shown are pictures of the crew at work.





## NATURAL RESOURCES ASSISTANCE COUNCIL COMPLETES 2<sup>ND</sup> ROUND

SCOTT BERNHARD

The Natural Resources Assistance Council, an 11 member board of which Keith Earley is a member and Scott Bernhard is the District Liaison, recently ranked prospective open space and riparian corridor projects. The 6 projects were vying for approximately \$1,700,000 in Clean Ohio funds available to local political subdivisions, conservancy, recreation, or park districts, and non-profit organizations. Those applying included the Cities of Toledo, Maumee, and Oregon, Metroparks, the

Nature Conservancy, and the Olander Park System. Three projects were approved for funding.

The Nature Conservancy, which ranked the highest, will receive \$127,500 for acquisition of 2 parcels. Those parcels are 50 acres on the north side of Shaffer Road, east of S.R. 295, and 2.5 acres on the west side of Schwamberger Road, south of Angola Road. Both parcels are adjacent to the Kitty Todd Nature Preserve.

The Metroparks will receive \$1,228,440 for acquisition of

multiple parcels in western Lucas County. The locations of those parcels are as follows: 80 acres at the southwest corner of Monclova and Whitehouse-Spencer Roads; 50.53 acres on the east side of Eber Road, north of Laplante Road; 77 acres on the north side of Geiser Road, west of Crissey Road; 100.76 acres in the Westwinds Industrial Park; and 62.70 acres on the west side of Eber Road, north of Angola Road.

Olander Park System will receive \$353,671 for acquisition of 60 Acres adjacent to the northeast

corner of Sylvania Avenue and Mitchaw Road.

Program information can be found on the web at [www.pwc.state.oh.us](http://www.pwc.state.oh.us).

## COUNTY SURVEY CREWS UTILIZE GLOBAL POSITIONING SYSTEM

DENNY PRITSCHER

This past May the Survey Department took part in "The Ohio, Federal Base Network, Re-observation Project". All public and private entities were encouraged to participate.

Ohio is one of the last states to re-observe their portion of the Federal Base Network (FBN). The NGS hopes to have the few remaining states done by December 2003. When all the states are done, this data will be used to support a nationwide datum readjustment. They hope to have monuments in the FBN at an accuracy of 1-centimeter for latitude and longitude and 2-centimeter for ellipsoidal height.

Participation in the program can be done by independent contractors, contracting through the State, or by co-observing with one's own equipment. The County chose to co-observe.

Both of the survey crews, using two GPS equipment packages rented from City Blueprint Co., occupied four points for 5 ½ hours at a time. Each point was occupied three separate times. The specifications for this project called for one of the occupation times to be offset from the other two in order to gather data from two different constellations of satellites. This resulted in us having to be out two nights with one-man crews until 11:00 PM. That was our first time ever doing field-work after dark!

The points used on this project were 1) a point in the existing NGS network on S.R.-295, a ½ mile South of Neapolis-Waterville Rd., 2) a point in the existing NGS network at the intersection of

Cedar Point Rd. and North Curtice Rd., which is also at the entrance to Maumee Bay State Park, 3) Lucas County Benchmark #80, at the intersection of Centennial Rd. and Brint Rd., and 4) Lucas County Benchmark #633, at the intersection of Bancroft St. and Fulton-Lucas Rd.

The points were chosen partially by their spacing throughout the County, the amount of overhead obstructions, and also by being parts of other existing networks. We wanted to space these points throughout the County so we can expand out from them in the future. The less overhead obstruction they had the better able we were to receive the signals from the satellites. By tying into the existing GPS points, the whole existing County Survey Point and Benchmark network can be "tightened up" with the re-adjustment the NGS is going to perform with this new data. Also Benchmarks #80 & #633 were previously included in precise level runs, giving them very accurate elevations.

The equipment was set to "log data" from the satellites at 15 second epochs or intervals. When connected to the GPS receiver the controller unit can show which satellites are visible to the antenna, where they're at in the sky, and other information about each satellite. On average, we were logging data from 6 satellites every 15 seconds, for 5 ½ hours per set-up, and 3 separate set-ups per point. That's averages 4860 measurements for each point.

Data is then downloaded to sepa-

rate files for each session and all computer files (including raw data) are transferred to a CD. The CD was then shipped to David Conners, the NGS advisor for the state of Ohio. This was a good way for us to "get our feet wet" with some new technology while at the same time providing a valuable service to the community. Eventually all surveyors will be using this type of equipment daily. This data and re-adjustment will enhance the nations spatial framework for navigation, mapping, engineering and cadastral surveys, and Geographic Information Systems (GIS).

The survey crews learned how to use new equipment and their dedication on this program is appreciated.

More information on this project can be found on the NGS website at, <http://www.ngs.noaa.gov/PROJECTS/FBN/>



Denny Pritscher setting up equipment.



Rick Kaufman explains satellite trajectory.



Chris Cornell monitors GPS location.



### SURVEY TECHNICIAN HIRED

Welcome to our newest full-time employee, Steven Beers. Steve started full-time in the Survey Crew on June 4<sup>th</sup>, filling the vacant Survey Technician I position. We anticipate a productive future for the survey crew with the addition of Steve's 25 years of experience and knowledge in the survey field.

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### CONGRATULATIONS, TORI!

Pictured from left to right are Brian S. Miller, Keith Earley, and Tori Simms as the Office Staff celebrates Tori's completion of her Bachelor's Degree in Computer Aided Drafting.



Congratulations Tori, and keep up the good work!

### EMPLOYEE PROFILE



**Paul Elinger - Road Maintenance  
Garage Superintendent**

Paul Elinger has been working for the Lucas County Engineer since 1970 and is currently the Superintendent of the Road Maintenance Department. He started as a Draftsman when Ben Kesting was the County Engineer, and from there went to the Drainage Department, the Tax Map Department, and then to the Inspection Department. He was then promoted to the position of Right of Way Coordinator, Assistant Road Superintendent, and finally to

his current position.

Paul has an Associates Degree in Civil Engineering from the University of Toledo.

He and his wife Chris have two (2) children, Abbey and Justin. They also have two (2) dogs and four (4) cats. His hobbies include gardening and wood carving, and plans to continue Real Estate Appraising, fishing, golf, and relaxing in the future. His favorite restaurant is Mancy's and his favorite foods are too many to list.

Paul's favorite charity is the Humane Society. He also says the secret to life is "don't take yourself too seriously, live a little".

The County Engineer's Office appreciates Paul's dedication and many years of service.

### POSITION DESCRIPTIONS COMPLETE

All Lucas County Engineer's Office employees and non-union field employees now have updated position descriptions and class titles. For the first time in over a decade, all classifications have been updated to reflect specific duties within the confines of their respective job description. Since the descriptions are now stored on a database, updates to a description can be made easily on the computer.

### HAPPY BIRTHDAY to . . . . .

September	
Dale Bettinger	4
Wayne Boyd	7
Tina Richey	9
Ed Schutte	12
Mike Myers	18
Brian S. Miller	19
Gordon Skiver	20
Chris Cornell	25
Walt Harris	29
Ken Limes	30

October	
Debbie Ackerman	1
Tim Durfey	1
Brian W. Miller	1
Jeff Morris	9
Rick Kaufman	17
Kara Dever	18
John Bowser	25
Dave Bettinger	31

November	
Bruce Martin	2
Paulette Pakulski	8
Josh Hazard	12
Margie Knopp	15
Mike Sadowski	18
Rick Stevens	22
John Crandall	27
Mark Drennen	30

December	
Brace Gleckler	5
Vince Cenicerros	9
Nancy Ovens	14
Jeff Winn	23
Keith Earley	31
Herb Higgins	31

### *The Adventures of Lucas*

Tell Brian W. Miller  
this is more than a  
bottom dip project!



## FLEET DEPARTMENT NEWS

JIM HALL

About one year ago the management duties in the Road Maintenance Department were revised. Bob Myers took over long term planning of the Fleet Department, equipment purchases, in addition to road crew operations. Jim Hall became the Fleet Manager for day to day operations and reports to Bob Myers on field projects and Paul Elinger on personnel matters. Paul Elinger continues with overall responsibility for the operations and the traffic/signing department. Mark Shiple took over the O.U.P.S. position and assists Bob Myers with equipment.

The following goals have been established by and for the Fleet Department: 1) empower Fleet Department personnel to have more input and responsibility for fleet operations; 2) develop a comprehensive five (5) year equipment replacement plan; 3) develop an intensive regular preventive maintenance program for all equipment; and 4) improve efficiency and appearance of the physical plant.

The key to the success of the Fleet Department is due to our great staff. John Callahan, Tim Stopera, and Jeff Winn comprise the stock department. They have 70 years of combined experience with the Road Maintenance Department and all are trained and proficient in the management of supplies and inventory. Mike Harmon is the Night Watchman and not only provides necessary security and janitorial functions, but also handles all ordering of maintenance supplies. This has saved the county approximately 40% percent on maintenance supplies by aggressively "price shopping" items.

When your vehicle needs service or repairs, we are very fortunate to have a skilled and diverse group of Certified Technicians. Clarence Bocook, Rudy Mravec, Pat Molnar, and Jeff Harrison are master technicians with over 120 years of combined experience in vehicle repair. They have countless hours of certification and training, and continue to upgrade annually. Sometimes this group is referred to around the garage as the "Blue Angels", and when you are in need of their unique service, it's easy to understand why! "Team Fleet" also provides support and assistance to some of the Townships and other County agencies.

The entire "Team Fleet" attempts to meet weekly for about 1/2 hour to discuss ways to improve the efficiency of the Fleet Department. This has resulted in savings on repairs and management operations. Routine maintenance and repairs will be the key in squeezing as much life out of each vehicle in the future. "Team Fleet" has developed our moto "HOW can we serve YOU better"? If you have any suggestions, please pass them along to any team member, and we will discuss them at the weekly meeting.



## NEW FLOOD INSURANCE MAPS

BOB NEUBERT

The Lucas County Engineer, with the cooperation of the Lucas County Auditor, will become a "cooperating technical partner" with the Federal Emergency Management Agency (FEMA) to produce new digital flood insurance rate maps. These maps will be an official digital flood map, and will be based on the Auditors Real Estate Information System. The first step in this multi-year process is to identify problems with our current maps.

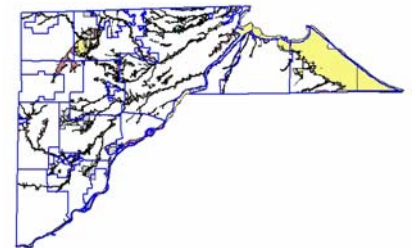
For this, FEMA has developed a Map Need Update Support System, which will be used to indicate the existing problems. We have contracted with United States Geological Survey (USGS) to study 22 waterways and areas

that do not have an elevation established or areas with so much development in them that the elevations shown on the current maps are no longer accurate. USGS will study these waterways using aerial photos, light detection and ranging surveys, Geographic Information System data, County Engineer records, and actual ground surveys.

The completed survey data will be delivered to us in digital form, allowing us to tweak the models at any time in the future.

This project is jointly funded by the City of Toledo and Lucas County, with USGS providing a 25% grant. The ultimate goal of this project is to provide all Lucas County residents with the most

accurate flood insurance maps possible. Additional information regarding this project should be available in February 2004.



*"Map makers draw all people together"*

*Anonymous*



## Improvements Planned for Central Avenue (US-20/SR-120) and McCord Road

Mike Meyer

The Ohio Department of Transportation, Sylvania Township, and the Lucas County Engineer are cooperating on an improvement project for Central Avenue (US- 20/S.R. 120) from 1,260 feet west of McCord Road to the I-475/US-23 west ramps, including work on McCord Road from 1,240 feet south of Central Avenue to 1,060 feet north of Central Avenue. The project is along one of the most heavily traveled corridors in Lucas County with traffic volumes on Central Avenue of 30,000 vehicles per day west of McCord Road and 40,700 vehicles per day east of McCord Road. McCord Road has 13,700 vehicles per day south of Central Avenue and 16,400 vehicles per day north of Central Avenue.

The improvements on Central Avenue include: 1) widening to provide three through lanes in each direction (existing two lanes in each direction), 2) installation of a median barrier to restrict left turns to and from side streets and private driveways, 3) an additional left turn lane on westbound Central Avenue to southbound McCord Road (provides dual turn lanes rather than the one existing lane), 4) milling and resurfacing of the existing pavement, and 5) a new traffic signal at Central Avenue and Central Park West Drive.

For McCord Road, planned improvements include: 1) widening and resurfacing south of Central Avenue to include a second southbound lane (this widening is needed to "receive" the additional left turn lane from westbound Central Avenue), and 2) widening and reconstruction north of Central Avenue to include a second southbound lane.

These roadway improvements will improve traffic

capacity through the corridor resulting in less congestion and improved safety. The median is an access management feature to preserve roadway capacity and enhance traffic flow along Central Avenue.

The project's estimated construction cost is \$2.915 million and will be funded as a cooperative effort between the State, County, and Township. The State will be responsible for Central Avenue costs of \$1.639 million, while the County and Township will be responsible for the McCord Road costs of \$1.134 million.

The construction contract for the Central Avenue and McCord Road improvements will be let by ODOT with bidding anticipated in March, 2004 and construction to be completed by Fall, 2005.

In conjunction with this project, Sylvania Township has been working with several business owners along the south side of Central Avenue to develop an access roadway from Wilford Road to west of Central Park West Drive. This roadway will allow for access to the new signal at Central Park West Drive from approximately eleven commercial or office parcels. The Township's access roadway will be constructed as a separate project during the same time period as the Central Avenue improvements.

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*Engineering safety today  
for a better tomorrow.*



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